The hundred species are distributed among thirty-one families. Twenty-six (26), or more than a quarter, belong to the large weedy order Compositæ. Other well-represented orders are the mustards and the grasses, each having eight species.

It is a well-known fact that weeds are often introduced into new localities in field, and even garden seeds; sometimes as many as forty kinds of weed seeds have been identified in a sample of clover seed, and grass seed is frequently no less free from foul stuff. Therefore sets of these seeds, as shown in the engraving, have been prepared to aid *stationists* (pardon the coining of a new word for station-agriculturists, station-horticulturists, station-botanists and other station workers taken collectively) and seedsmen in determining the exact nature of much of the impurity found in commercial seeds.

College Experiment Station, New Brunswick, N. J., Dec. 29, 1892.

Preliminary Report on the Flora of Luzerne County, Penn.

By A. A. Heller.

We are more or less prone to consider the long-settled portions of our country old and undesirable ground, when botanical exploration is thought of. Mexico, the far West, or some other distant point, claims our attention, and we forget that all around us is an abundance of territory that has never been touched by a botanical collector.

I have just begun to realize that the State of Pennsylvania is a great botanical wilderness. Many of the counties have never been explored, or only partially. Most of the work that has been done is due to the untiring energy of Prof. Thos. C. Porter. Our own county of Lancaster, which can boast of almost fifteen hundred species, an account of which has been published by Dr. Porter, has a great tract of limestone and new red sandstone, comprising more than half of the county, that is sadly in need of attention.

To me, one of the most interesting of these "wild" counties is Luzerne, situated somewhat northeast of the centre of the State. To the Torrey Club it is especially interesting, as it falls within the limits of the Preliminary Catalogue, the one hundred mile circle cutting through the eastern part of the county.

During the summer of 1888 my attention was first called to its interesting flora, while staying at Berwick, Columbia county. The northern part of Berwick touches the southern boundary of Luzerne county. The county is cut almost in half by the Susquehanna river, and contains seven marked geological formations. Within three of these, Chemung, Hamilton and Catskill formation, and in territory chiefly within the limit of glacial action, it has been my privilege to collect, though to a very limited extent. The terminal moraine, as I have since ascertained, makes its appearance at Wapwallopen, about seven miles above Nescopeck, runs in a southwesterly direction across the river, which it follows nearly to Berwick, and thence passes into Columbia county.

On the high bluff on the right bank of the river, and almost on the southern boundary line, is a quantity of *Tissa rubra*, and along the steeply-sloping sides, numerous patches of *Sedum acre*. Following north, along the tracks of the Delaware, Lackawanna & Western Railroad, which runs parallel to the river and canal, many of our common plants are to be found. Here *Solidago juncea* blooms earlier than at any other place where I have seen it, making its appearance in July.

Asclepias obtusifolia is not common, only two or three plants being observed, while a rare find in the shape of three plants of *Spiræa rubra*, the only ones that I have ever seen growing wild, peeped out from the rank growth of grass and bushes. *Apios tuberosa* twined over the bushes, near neighbor to *Phlox maculata* and *Lathyrus palustris*. Down along the low margin of the canal a tangled mass of *Myosotis laxa* was guarded by the large and showy blue flag, *Iris versicolor*. In a little swampy place along the river, *Veronica scutellata* flourished, and in drier and more open places, *Ranunculus acris* and *Œnothera pumila*. Growing in the sand on the river brink, was a little patch of *Ranunculus reptans*, which is completely submerged except at times of low water.

In March, 1892, I spent two days at Berwick, and, while taking a walk along the railroad, observed a number of small pine trees growing on the side of the bank. They were full of cones, and close inspection satisfied me that they are *Pinus echinata*, although I do not have specimens to substantiate the determination. If it is really this pine, its appearance so far North is remarkable, at least at such a distance from the coast.

Crossing the river to Nescopeck, and following up the left bank for about the same distance as on the right bank, namely, about a mile and a half, quite a different flora is observed. One of the first things noticed was a stalk or two of *Cacalia suaveolens*, and further on an occasional plant of *Physostegia Virginiana* and *Hypericum ellipticum*. Overhanging the river bank in deep, shady places, were clumps of *Rhododendron maximum*, the recollection of which leaves a bright spot in one's memory, for few things are prettier than the sea of glossy green leaves, intermingled with the glorious flower clusters of *Rhododendron*. I do not attach a specific name, as it is not an easy matter to decide which *Rhododendron* is the most handsome, for when I first saw the gorgeous purple masses of *R. Catawbiense* at Blowing Rock and on Grandfather Mountain, North Carolina, they seemed more beautiful than any other, until the delicate white and pink of *R. maximum* appeared almost at our very doors. Two rare finds were *Stellaria uliginosa* and *Pyrola chlorantha*, each represented very sparingly.

Following Black Creek for a short distance beyond Nescopeck, only a few things of interest were found, among which were *Monarda fistulosa*, var. *rubra*, *Veronica Virginica* and two forms of *Spiræa salicifolia*, one with broad leaves, and the other with narrow ones. One day I heard of a little body of water, which was said to be a famous place for water lilies, and rightly concluded that other plants might be found there. Locally it is known as the "Pond," and "Lily Lake," and officially on the map as Long Pond. It is situated some ten or twelve miles northeast of Berwick, and about three miles from the river. It was visited first on July 5, 1888, then on June 24th and July 29, 1889, by myself, and on August 15th and 16th, 1889, by Mr. Small and myself, and by us again on September 20, 1890. Then came an interval of two years, until September 16th and 17th, 1892, when Miss E. Gertrude Halbach and myself made the so far final trip, and of it I intend especially to speak.

On the morning of September 16th we crossed from Berwick to Nescopeck, taking the train to Pond Hill, a station nine miles farther north. Just opposite the station, and only a few feet from it, at the base of the hill which skirts the river, is an outcropping of rocks full of imprints of crinoids and other fossils. Upon the

rocks were found *Woodsia Ilvensis* and a few plants each of *Camptosorus rhizophyllus*, *Asplenium Trichomanes*, and *Arabis lyrata*. Here Nature had been lavish with her paint-brush. Under the trees of *Cornus florida*, whose bright-colored leaves lit up the wooded hillside, was an abundance of *Solidago bicolar*, *S. cæsia*, and *Eupatorium ageratoides*. The fence rows were purple with *Aster Novæ-Angliæ*. About three hundred yards from the station the road turns to the right, through the woods, and up to the top of the hill. Along this road the polymorphous *Solidago nemoralis* was very plentiful, as was *S. lanceolata* and *S. latifolia*. *S. squarrosa* was found only occasionally.

It is to be regretted that we did not take an old road below the present one, for along it in 1889 I found several specimens of *Solidago rupestris*, a very rare find for Northeastern Pennsylvania. This old road was reserved for the return trip, but at that period time, which is no respecter of botanists, was urging us on at a lively gait in order to catch the train. There was just one cause for regret, and that was when we came to the station for the rare *Aster concinnus*, discovered by Mr. Small and myself in 1890. The farmer along whose fence they grew had an idea that "weeds" do not improve the appearance of fence-rows, and had cut them down. Owing to this only two poor specimens were obtained.

The lake, a beautiful little sheet of water about two miles long and a mile wide, is evidently a relic of the glacial period. According to the aneroid barometer, it is 880 feet above sea level, and 480 feet above the river. On the north it is skirted by a low mountain ridge, on the west by gently-sloping ground, with indications that there was once an outlet on that side, and on the other sides by low and often swampy ground. It is a veritable botanical Paradise. The chocolate-colored water is full of little peat islands, literally swarming with vegetation, while the shores are lined with shrubs, and the woods full of interesting plants. A boat was procured, and a voyage of discovery begun. Among the first things observed were the tiny yellow flowers of *Utricularia gibba* rising from a very ugly-looking mixture of peat and mud. Masses of roots of *Castalia odorata* were floating about, nuclei for the growth of future vegetation. A very tempting-looking bush of *Ilex verticillata*, var. *padifolia* caused us to land and investigate the shore.

A good supply of several forms of *Ilex* was gathered, in addition to *Spiræa salicifolia*, *S. tomentosa*, *Cassandra calyculata*, *Polygonum emersum*, and *Vaccinium corymbosum*, var. *amœnum*. *Vaccinium disomorphum*, so plentiful two years before, the taste of whose fruit seems still to linger, was not observed. At that time the fruit was so plentiful that its weight bent the bushes almost to the water's edge.

Pushing off again, we were soon among colonies of *Xyris Caroliniana*, *Eriocaulon septangulare*, *Oxycoccus macrocarpus*, *Eleocharis olivacea*, found nowhere else in Pennsylvania, and *Juncus pelocarpus* found at one other station in the State. Winding in and out among the bushes of *Cephalanthus occidentalis* and clumps of *Nesæa verticillata*, which form a sort of breakwater, we hove in sight of "Stumptown," as it was promptly christened, near the upper end of the lake. It seems at one time to have been dry, or as near dry land as is possible there, for stumps are very plentiful, and so are lilies, their pretty white and golden cups resting lightly upon the surface of the water. *Sarracenia purpurea* was searched for, but in vain, although it is found there earlier in the season. An almost submerged log near the shore is headquarters for *Drosera rotundifolia* and *D. intermedia*, var. *Americana*, the two sometimes growing matted together. Another landing was made, and fine specimens of *Aster corymbosus*, *A. linariifolius*, *A. undulatus* and other plants were collected. A hasty investigation of the opposite or north shore yielded *Polygonum hydropiperoides* and *Potamogeton Nuttallii*. The lengthening shadows warned us that it was time to suspend operations, and further investigation was abandoned until next day.

Early the following morning we were out on the lake, getting a good supply of things that had merely been sampled the day before, and looking out for new treasures. *Cicuta bulbifera*, *Bœhmeria cylindrica*, a form of *Bidens cernua* which I have seen nowhere else, and *Coreopsis discoidea*, held sway over a patch of peat. *Aster undulatus*, with larger flowers than usual, and thin, broad leaves, several forms of *A. cordifolius*, *A. lateriflorus*, var. *hirsuticaulis*, a small flowered form of *Solidago arguta*, and a form of the exceedingly variable *Ilex verticillata* were collected. In the hasty search over a field, only one plant of *Gnaphalium decurrens* was found, but on the edge of the woods were good fruiting specimens

of *Quercus Muhlenbergii*, var. *humilis*, and *Betula lenta*. A good-sized tree of *Pyrus nigra* was looked for, but absence of fruit and the lateness of the hour prevented us from making a thorough search. This tree, observed in 1890, is twenty or twenty-five feet high, and worthy of being included in Prof. Sargent's Silva. A hurried tramp through the woods added *Pyrola secunda*, *P. elliptica*, and what is probably *P. uliginosa*, and fine specimens of *Asplenium platyneuron*.

Altogether, 156 species were observed, with 82 on the list of actual collection. Many more might have been added, but lack of time prevented. As far as I have been able to learn, no other persons have botanized in this portion of the county, or, indeed, in any other part, unless in the extreme northeastern end about Pittston. Thorough exploration of other portions will undoubtedly yield a rich and interesting flora. On the right bank of the river, scattered about in the Catskill formation, are six or eight small lakes, and one larger one called Harvey's Lake. Some five or six miles east of Long Pond are two lakes, known locally as Mud Pond and Three-Cornered Pond, and about ten miles east of these, not far from the Lehigh Valley Railroad, is a nameless lake, the largest in the county. Just east of this lake is an elevated section of Pocono sandstone, which must have a flora very similar to that of the Pocono, as it is merely a western extension of that interesting region.

The total number of species collected in the county thus far is 325, about one-fifth of the number that ought to be found.

LIST OF SPECIES COLLECTED.

Clematis Virginiana, L. Above Berwick.
Anemone Virginiana, L. Above Berwick.
Hepatica triloba, Chaix. Pond Hill.
Ranunculus acris, L. Above Berwick.
Ranunculus reptans, L. Above Berwick.
Isopyrum trifolium (L.) Britton. Long Pond.
Actæa alba (L.) Mill. Long Pond.
Cimicifuga racemosa (L.) Nutt. Pond Hill.
Liriodendron Tulipifera, L. Pond Hill.
BRASENIA PURPUREA (Michx.) Long Pond.
Hydropeltis purpurea, Michx. Fl. Bor. Amer. 324, t. 29 (1803).
Brasenia peltata, Pursh, Fl. Amer., Sept. 389 (1814).
Nymphæa advena, Soland. Long Pond.

Castalia odorata (Dryand) Woodv. & Wood. Long Pond.
Sarracenia purpurea, L. Long Pond.
NECKERIA SEMPERVIRENS (L.) Long Pond.
Fumaria sempervirens, L. Sp. Pl. 700 (1753).
Corydalis glauca, Pursh, Fl. Amer. Sept. 463 (1814).
Nasturtium hispidum (Desv.) DC. Above Berwick.
Arabis Canadensis, L. Long Pond.
Arabis lyrata, L. Pond Hill.
Lepidium Virginicum, L. Long Pond.
Lechea Leggettii, Britton & Hollick. Pond Hill.
Viola palmata, L. Pond Hill.
Polygala verticillata, L. Long Pond.
Silene stellata (L.) Ait. Nescopeck.
Cerastium vulgatum, L. Above Berwick.
Stellaria uliginosa, Murr. Above Nescopeck.
Tissa rubra (L.) Britton. Above Berwick.
Hypericum Ascyron, L. Above Berwick.
Hypericum ellipticum, Hook. Above Nescopeck.
Hypericum maculatum, Walt. Above Berwick.
Hypericum mutilum, L. Long Pond.
Hypericum perforatum, L. Above Berwick.
Hypericum Virginicum, L. Long Pond.
Tilia Americana, L. Above Berwick.
Geranium maculatum, L. Long Pond.
Oxalis stricta, L. Pond Hill.
Impatiens aurea, Muhl. Pond Hill.
Ilex verticillata (L.) A. Gray. Long Pond.
Ilex verticillata, var. *padifolia* (Willd.) T. & G. Long Pond.
Nemopanthes mucronata (L.) Trelease. Long Pond.
Ceanothus Americanus, L. Pond Hill.
Vitis cordifolia, Michx. Above Berwick.
Acer saccharinum, L. Long Pond.
Rhus glabra, L. Above Berwick.
Rhus radicans, L. Pond Hill.
Rhus typhina, L. Above Berwick.
Melilotus alba, Lam. Above Berwick.
Trifolium arvense, L. Long Pond.
Meibomia Canadensis (L.) Kuntze. Above Berwick.
Lespedeza hirta (L.) Ell. Pond Hill.
Lathyrus palustris, L. Above Berwick.
Amphicarpæa comosa (L.) Ridd. Above Berwick.
Apios tuberosa, Mœnch. Above Berwick.
Cassia nictitans, L. Above Berwick.
Prunus Americana, Marsh. Above Berwick.
Spiræa rubra (Mill.) Britton. Above Berwick.
Spiræa salicifolia, L. Nescopeck, Long Pond.
Spiræa tomentosa, L. Long Pond.

Rubus Canadensis, L. Long Pond.
Rubus hispidus, L. Long Pond.
Rubus villosus, Ait. Above Berwick.
Rubus villosus, var. *montanus*, Porter. Long Pond.
Geum Canadense, Jacq. Above Berwick.
Potentilla Canadensis, L. Pond Hill.
Rosa Carolina, L. Long Pond.
Rosa humilis, Marsh. Above Berwick.
Pyrus nigra (Marsh.) Sargent. Long Pond.
Hydrangea arborescens, L. Above Nescopeck.
Sedum acre, L. Above Berwick.
Drosera intermedia, Drev. & Hayne., var. *Americana*, D. C. Long Pond.
Drosera rotundifolia, L. Long Pond.
Proserpinaca palustris, L. Long Pond.
Nesæa verticillata (L.) H.B.K. Long Pond.
Epilobium coloratum, Muhl. Above Berwick.
Epilobium spicatum, Lam. Nescopeck.
Œnothera fruticosa, L. Long Pond.
Œnothera biennis, L. Pond Hill.
Œnothera pumila, L. Above Berwick.
Hydrocotyle Americana, L. Above Berwick.
Cicuta bulbifera, L. Long Pond.
Sium cicutæfolium, Gmel. Long Pond.
Angelica villosa (Walt.) B.S.P. Pond Hill.
Aralia racemosa, L. Long Pond.
Cornus alternifolia, L. Pond Hill.
Cornus circinata, L'Hér. Pond Hill.
Cornus florida, L. Long Pond.
Sambucus Canadensis, L. Above Nescopeck.
Sambucus pubens, Michx. Above Berwick.
Viburnum acerifolium, L. Pond Hill.
Viburnum dentatum, L. Long Pond.
Cephalanthus occidentalis, L. Long Pond.
Mitchella repens, L. Long Pond.
Galium asprellum, Michx. Above Berwick.
Galium circæzans, Michx. Long Pond.
Galium lanceolatum, Torr. Above Nescopeck.
Galium triflorum, Michx. Long Pond.
Eupatorium ageratoides, L. f. Pond Hill.
Eupatorium purpureum, L. Pond Hill.
Solidago arguta, Ait. Long Pond.
Solidago bicolor, L. Pond Hill.
Solidago cæsia, L. Pond Hill.
Solidago Canadensis, L. Pond Hill.
Solidago juncea, Ait. Pond Hill.
Solidago lanceolata, L. Pond Hill.
Solidago latifolia, L. Pond Hill.

Solidago nemoralis, Ait. Pond Hill.
Solidago rugosa, Mill. Pond Hill.
Solidago rupestris, Raf. Pond Hill.
Solidago serotina, Ait. Above Berwick.
Solidago squarrosa, Muhl. Pond Hill.
Aster acuminatus, Michx. Lond Pond.
Aster concinnus, Willd. Long Pond.
Aster cordifolius, L. Pond Hill.
Aster cordifolius, L., var. *lanceolatus*, Porter. Long Pond.
Aster corymbosus, Ait. Long Pond.
Aster ericoides, L. Pond Hill.
Aster infirmus, Michx. Pond Hill.
Aster lateriflorus (L.) Britton, var. *hirsuticaulis* (Lindl.), Millsp. Long Pond.
Aster linariifolius, L. Long Pond.
Aster Novæ-Angliæ, L. Pond Hill.
Aster paniculatus, Lam. Pond Hill.
Aster patens, Ait. Long Pond.
Aster patens, var. *phlogifolius* (Muhl.) Nees. Long Pond.
Aster prenanthoides, Muhl. Pond Hill.
Aster undulatus, L. Long Pond.
Erigeron Canadensis, L. Long Pond.
Anaphalis margaritacea (L.) Benth. & Hook. Long Pond.
Gnaphalium decurrens, Ives. Long Pond.
Gnaphalium obtusifolium, L. Long Pond.
Gnaphalium purpureum, L. Long Pond.
Gnaphalium uliginosum, L. Long Pond.
Polymnia Canadensis, L. Pond Hill.
Coreopsis discoidea, T. & G. Long Pond.
Bidens frondosa, L. Pond Hill.
Bidens cernua, L. Long Pond.
Achillæa Millefolium, L. Long Pond.
Chrysanthemum Leucanthemum, L. Long Pond.
Artemisia Pontica, L.? Long Pond.
Erechtites hieracifolia (L.) Raf. Long Pond.
Cacalia atriplicifolia, L. Pond Hill.
Cacalia suaveolens, L. Nescopeck.
Carduus lanceolatus, L. Long Pond.
Hieracium venosum, L. Long Pond.
Lactuca Canadensis, L. Above Berwick.
Prenanthes altissima, L. Long Pond.
Prenanthes Serpentaria, Pursh. Long Pond.
Lobelia cardinalis, L. Long Pond.
Lobelia inflata, L. Long Pond.
Lobelia spicata, Lam. Above Berwick.
Lobelia syphilitica, L. Pond Hill.
Campanula aparinoides, Pursh. Above Nescopeck.
Campanula rotundifolia, L. Above Berwick.

Gaylussacia frondosa (L.) T. & G. Long Pond.
Vaccinium corymbosum, L., var. *amœnum* (Ait.) A Gray. Long Pond.
Vaccinium disomorphum, Bigel. Long Pond.
Vaccinium stamineum, L. Long Pond,
Vaccinium vacillans, Soland. Long Pond.
Oxycoccus macrocarpus, Pers. Long Pond.
Gaultheria procumbens, L. Long Pond.
Epigæa repens, L. Long Pond.
Kalmia angustifolia, L. Long Pond.
Kalmia latifolia, L. Pond Hill.
Azalea nudiflora, L. Long Pond.
Rhododendron maximum, L. Above Nescopeck.
Pyrola chlorantha, Sw. Above Nescopeck.
Pyrola elliptica, Nutt. Long Pond.
Pyrola rotundifolia, L. Long Pond.
Pyrola secunda, L. Long Pond.
Pyrola uliginosa, Torr.? Long Pond.
Chimaphila umbellata (L.) Nutt. Pond Hill.
Hypopitys Monotropa, Crantz. Long Pond.
Lysimachia quadrifolia, L. Above Nescopeck.
Lysimachia terrestris (L.) B.S.P. Above Berwick.
Steironema ciliatum (L.) Raf. Above Berwick.
Asclepias exaltata (L.) Muhl. Pond Hill.
Asclepias obtusifolia, Michx. Above Berwick.
Sabbatia angularis (L.) Pursh. Above Berwick.
Gentiana quinquefolia, L. Pond Hill.
Bartonia Virginica (L.) B.S.P. Long Pond.
Phlox maculata, L. Above Berwick.
Phlox paniculata, L. Long Pond.
Phlox subulata, L. Long Pond.
Myosotis laxa, Lehm. Above Berwick.
Cuscuta Gronovii, Willd. Above Berwick.
Physalis Virginiana, Mill. Above Berwick.
Scrophularia nodosa, L., var. *Marylandica* (L.) A. Gray. Pond Hill.
Chelone glabra, L. Above Berwick.
Mimulus ringens, L. Above Berwick.
Gratiola Virginiana, L. Above Berwick.
Ilysanthes gratioloides (L.) Benth. Above Berwick.
Veronica Americana, L. Above Berwick.
Veronica officinalis, L. Long Pond.
Veronica scutellata, L. Above Berwick.
Veronica Virginica, L. Nescopeck.
Gerardia pedicularia, L. Pond Hill.
Gerardia tenuifolia, Vahl. Long Pond.
Melampyrum lineare, Lam. Above Nescopeck.
Utricularia gibba, L. Long Pond.
Utricularia vulgaris, L. Long Pond.

Dianthera Americana, L. Above Berwick.
Verbena hastata, L. Pond Hill.
Verbena urticæfolia, L. Pond Hill.
Mentha Canadensis, L. Above Berwick.
Mentha piperita, L. Pond Hill.
Mentha viridis, L. Above Berwick.
Cunila Mariana, L. Pond Hill.
Kœllia lanceolata (Pursh) Kuntze. Above Berwick.
Lycopus Europæus, L. Above Berwick.
Lycopus sinuatus, L. Pond Hill.
Lycopus Virginicus, L. Nescopeck.
Hedeoma pulegioides (L.) Pers. Long Pond.
Melissa officinalis, L. Long Pond.
Monarda fistulosa, L., var. *rubra*, A. Gray. Nescopeck.
Scutellaria galericulata, L. Long Pond.
Scutellaria lateriflora, L. Long Pond.
Physostegia Virginiana (L.) Benth. Above Nescopeck.
Trichostema dichotomum, L. Nescopeck.
Teucrium Canadense, L. Nescopeck.
Polygonum arifolium, L. Long Pond.
Polygonum emersum (Michx.) Britton. Long Pond.
Polygonum Hydropiper, L. Pond Hill.
Polygonum hydropiperoides, Michx. Long Pond.
Polygonum Pennsylvanicum, L. Pond Hill.
Polygonum punctatum, Ell Long Pond.
Polygonum sagittatum, L. Pond Hill.
Polygonum Virginianum, L. Long Pond.
Fagopyrum esculentum, Mœnch. Nescopeck.
Sassafras officinale, Nees. Long Pond.
Euphorbia hypericifolia, L. Pond Hill.
Bœhmeria cylindrica (L.) Willd. Long Pond.
Juglans nigra, L. Pond Hill.
Myrica asplenifolia (L.) Banks. Pond Hill.
Betula lenta, L. Long Pond.
Betula lutea, Michx. f. Pond Hill.
Betula nigra, L. River bank, near Pond Hill.
Betula populifolia, Marsh. Long Pond.
Alnus incana (L.) Willd. Long Pond.
Alnus serrulata, Willd. Long Pond.
Carpinus Virginiana (Marsh.) Sudworth. Pond Hill.
Quercus alba, L. Pond Hill.
Quercus Muhlenbergii, Engelm., var. *humilis* (Marsh.) Britton. Long Pond
Quercus Prinus, L. Pond Hill.
Salix cordata, Muhl. Above Berwick.
Salix tristis, Ait. Long Pond.
Populus grandidentata, Michx. Long Pond.
Leptorchis liliifolia (L.) Millsp. Long Pond.

Corallorhiza multiflora, Nutt. Long Pond.
Gyrostachys cernua (L.) Kuntze. Pond Hill.
Gyrostachys gracilis (Bigel.) Kuntze. Nescopeck.
Peramium pubescens (Willd.) Morong. Long Pond.
Pogonia ophioglossoides (L.) Ker. Long Pond.
Habenaria lacera (Michx.) R. Br. Lond Pond.
Habenaria psycodes (L.) A. Gray. Long Pond.
Habenaria tridentata (Willd.) Hook. Long Pond.
Cypripedium pubescens, Willd. Long Pond.
Dioscorea villosa, L. Long Pond.
Iris versicolor, L. Above Berwick.
Smilax rotundifolia, L. Long Pond.
Polygonatum biflorum (Walt.) Ell. Pond Hill.
Unifolium Canadense (Desf.) Greene. Long Pond.
Unifolium racemosum (L.) Britton. Pond Hill.
Lilium Philadelphicum, L. Long Pond.
Uvularia perfoliata, L. Long Pond.
Uvularia sessilifolia, L. Long Pond.
Medeola Virginica, L. Long Pond.
Pontederia cordata, L. Long Pond.
Xyris Caroliniana, Walt. Long Pond.
Juncus acuminatus, Michx. Above Berwick.
Juncus pelocarpus, E. Meyer. Long Pond.
Arisæma triphyllum (L.) Torr. Pond Hill.
Acorus Calamus, L. Above Berwick.
Alisma Plantago, L., var. *triviale* (Pursh) B. S. P. Above Berwick.
Sagittaria graminea, Michx. Long Pond.
Sagittaria variabilis, Engelm., forma *gracilis* (Pursh) Britton.
Potamogeton Nuttallii, Cham. Long Pond.
Potamogeton pusillus, L. Long Pond.
Eriocaulon septangulare, With. Long Pond.
Dulichium spathaceum (L.) Pers. Long Pond.
Eleocharis acicularis (L.) R. & S. Long Pond.
Eleocharis olivacea, Torr. Long Pond.
Eleocharis palustris (L.) R. & S. Long Pond.
Rhynchospora alba (L.) Vahl. Long Pond.
Carex intumescens, Rudge. Pond Hill.
Carex lurida, Wahl. Pond Hill.
Panicum dichotomum, L. Nescopeck.
Panicum scoparium, Lam. Nescopeck.
Panicum virgatum, L. Above Berwick.
Andropogon provincialis, Lam. Above Berwick.
Agrostis perennans (Walt.) Tuck. Long Pond.
Bromus secalinus, L. Above Berwick.
Hystrix patula, Mœnch. Long Pond.
Pinus rigida, Mill. Pond Hill.
Pinus Strobus, L. Pond Hill.

Tsuga Canadensis (L.) Carr. Pond Hill.
Lycopodium annotinum, L. Pond Hill.
Lycopodium inundatum, L. Long Pond.
Lycopodium lucidulum, Michx. Long Pond.
Ophioglossum vulgatum, L. Long Pond.
Botrychium ternatum (Thunb.) Sw., var. *obliqum* (Muhl.) Milde. Pond Hill.
Botrychium Virginianum (L.) Sw. Long Pond.
Polypodium vulgare, L. Nescopeck.
Pteris aquilina, L. Long Pond.
Adiantum pedatum, L. Long Pond.
Asplenium Filix-fœmina (L.) Bernh. Long Pond.
Asplenium platyneuron (L.) Oakes. Long Pond.
Asplenium Trichomanes, L. Pond Hill.
Camptosorus rhizophyllus (L.) Link. Pond Hill.
Phegopteris connectilis (Michx.) BSP. Long Pond.
Phegopteris Dryopteris (L.) Feé. Pond Hill.
Phegopteris hexagonoptera (L.) Feé. Long Pond.
Dryopteris acrostichoides (Michx.) Kuntze. Long Pond.
Dryopteris Novaboracensis (L.) A. Gray. Long Pond.
Dryopteris dilatata (Sw.) A. Gray. Long Pond.
Dryopteris Thelypteris (L.) A. Gray. Long Pond.
Cystopteris fragilis (L.) Sw. Pond Hill.
Onoclea sensibilis, L. Above Berwick.
Woodsia Ilvensis (L.) R. Br. Pond Hill.
Woodsia obtusa (Spreng.) Torr. Long Pond.
Dicksonia punctilobula (Michx.) A. Gray. Long Pond.
Osmunda regalis, L. Long Pond.
Equisetum limosum, L.? Long Pond.
Equisetum sylvaticum, L. Above Berwick.

On Rusbya, a New Genus of Vacciniaceæ from Bolivia.

By N. L. Britton.

Among the most interesting features of the vegetation of the the Eastern Cordillera of the Andes is the group of epiphytic genera of Vacciniaceæ. Dr. Rusby obtained a number of them, and those here described are different from the rest in the presence of stipules, a feature hitherto unrecorded in either Ericaceæ or Vacciniaceæ. The genus here proposed will in a measure commemorate his arduous and eminently successful work in exploring a difficult region, and one hardly before visited by a botanist.